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STATE OF MONTANA  
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Department of Public Health

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Montana State Board of Health

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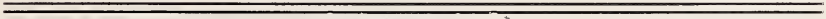
T. D. TUTTLE, M. D., Secretary



HELENA, MONTANA

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## WHAT TYPHOID FEVER COST THE PEOPLE OF MONTANA DURING THE LAST TWO MONTHS.

Typhoid fever is an absolutely preventable disease. Its cause is invariably filth in some form or other, and by filth we mean not simply dirty yards but closets that are left open for the reception of flies, manure piles for the hatching of flies, the disposal of human sewage so as to reach the source of any water supply, and, in general, the improper disposal of human excreta.

During the last two months, 289 cases of typhoid fever were reported as having occurred in this State. The average duration of each case of typhoid fever is 28 days. The average cost per visit of a physician in Montana is \$2.50. Allowing one visit a day for the 28 days makes the cost for the physician alone \$70 for each case of typhoid fever.

In addition to this, every case of typhoid fever must be nursed. A trained nurse costs \$25 per week. For four weeks this means a cost of \$100 for a nurse in every case of typhoid fever. In some instances a trained nurse is not employed, but someone must nurse the patient, and the money must be expended in the form of depriving the person who is nursing the patient from earning his or her ordinary income, or the patient must suffer from improper care. Nursing is one of, if not the essential treatment, in a case of typhoid fever. Without a trained nurse, additional visits must be made by the physician, so that the cost from this item is increased when that on account of the nurse is decreased.

Nearly every one of these cases reported occurred in men between 20 and 40 years of age, the age of greatest earning capacity. An average case of typhoid fever will keep a man from his work for six weeks. Allowing six of the days of this time for Sundays, and taking for granted that he will work only six days a week, and allowing \$3.00 a day as the average earning capacity of a man in Montana, it simply means that on account of incapacitation for work he has lost 36 days or \$108. We cannot deduct anything from this on account of what it would have cost to support him during these six weeks, as the nurse, trained or untrained, must be supported during this period.

It may be said that a large number of these cases are treated

at hospitals, and this is very true, but the hospitals must be supported and the cost of the care for attending cases of typhoid fever must be paid for by the individual suffering from the disease, by his friends, by the county, or by charitably disposed individuals.

Again, it may be said that many of them are treated under contracts with physicians. If a physician has taken a contract at a price for which he receives less than \$2.50 per visit, he has made a mistake in his estimate of the income from his contract. Physicians render a great deal of their services gratis, but they do not take contracts with the idea of losing money on them.

The total cost of each case of typhoid fever is therefore as follows: Physicians' fees, \$70; nurse hire, \$100; loss in earning capacity, \$108; total \$278 for each case of typhoid fever, and this must be paid by somebody, usually the house holder. This means that during the last two months typhoid fever has cost the people of this State the sum of \$80,342.

In addition to this, 46 people died from this disease in the two months under consideration.

This is simply a financial proposition. Is it a better business proposition to expend money in preventing this disease and indirectly in saving these lives, or is it better business policy to proceed as we are doing at present and expend the money in treating the patients and let the regular proportion of them die?

### **COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF SEPTEMBER, 1908.**

**SMALLPOX**—Cases of Smallpox were reported as follows: Flathead 2; Gallatin 16 (2 in Bozeman); Park 1; Ravalli 3; total 22; total last month, 23; total last September, 8.

**DIPHThERIA**—Cases of Diphtheria were reported as follows: Carbon 27; Cascade 3 (2 in Great Falls); Chouteau 3; Custer 2; Deer Lodge 1 (in Anaconda); Flathead 2; Lewis and Clark 2 (in Helena); Missoula 10 (9 in Missoula City); Silver Bow 18 (6 in Butte); Yellowstone 9 (8 in Billings); total 77; total last month, 58; total last September, 126.

**SCARLATINA**—Cases of Scarlet Fever were reported as follows: Carbon 1; Cascade 3 (2 in Great Falls); Deer Lodge 1 (in Anaconda); Flathead 1; Granite 10; Jefferson 1; Lewis

and Clark 2 (in Helena); Park 5 (all in Livingston); Powell 3; Silver Bow 44 (39 in Butte); total 71; total last month, 32; total last September, 33.

MEASLES—Cases of Measles were reported as follows: Fergus 2; Missoula 1; total 3; total last month, 7; total last September, 14.

TYPHOID FEVER—Cases of Typhoid Fever were reported as follows: Beaverhead 1; Carbon 7; Cascade 6 (4 in Great Falls); Chouteau 7; Custer 20; Dawson 1; Flathead 19; Gallatin 7 (2 in Bozeman); Granite 2; Lewis and Clark 3 (all in Helena, 2 imported); Missoula 36 (35 in Missoula, 29 imported); Powell 3; Ravalli 3; Silver Bow 24 (all in Butte); Yellowstone 4 (3 in Billings); total 143; total last month, 87; total last September, 270.

#### COMMUNICABLE DISEASES REPORTED FOR THE MONTH OF OCTOBER, 1908.

SMALLPOX—Cases of Smallpox were reported as follows: Cascade 1 (in Great Falls); Chouteau 3; Flathead 6; Gallatin 57 (33 in Bozeman); Ravalli 3; Silver Bow 5 (in Butte); Yellowstone 1 (in Billings); total 76; total last month, 22; total last October, 14.

DIPHTHERIA—Cases of Diphtheria were reported as follows: Carbon 2; Cascade 8 (all in Great Falls); Chouteau 3; Custer 4; Deer Lodge 3 (all in Anaconda); Fergus 2; Flathead 14; Gallatin 1 (in Bozeman); Jefferson 2; Lewis and Clark 2 (1 in Helena); Missoula 15 (11 in Missoula City); Park 1 (in Livingston); Ravalli 3; Silver Bow 7 (4 in Butte); Yellowstone 3 (2 in Billings); total 70; total last month, 77; total last October, 162.

SCARLATINA—Cases of Scarlet Fever were reported as follows: Beaverhead 13; Cascade 2 (1 in Great Falls); Deer Lodge 1 (in Anaconda); Flathead 16; Granite 10; Lewis and Clark 5 (1 in Helena); Madison 3; Missoula 4 (2 in Missoula City); Park 4 (3 in Livingston); Powell 3; Silver Bow 39 (29 in Butte); Teton 1; Yellowstone 1 (in Billings); total 92; total last month, 71; total last October, 65.

MEASLES—Cases of Measles were reported as follows: Broadwater 1; Fergus 67; Silver Bow 1 (in Butte); Yellow-

stone 1 (in Billings); total 70; total last month, 3; total last October, 11.

TYPHOID FEVER—Cases of Typhoid Fever were reported as follows: Beaverhead 2; Carbon 1; Cascade 7 (6 in Great Falls); Dawson 2; Fergus 12; Flathead 19; Granite 2; Lewis and Clark 2 (in Helena, 1 imported); Meagher 1; Missoula 45 (42 in Missoula City, 27 imported); Park 1; Powell 1; Ravalli 2; Sanders 3; Silver Bow 32 (all in Butte); Valley 3; Yellowstone 11 (7 in Billings); total 146; total last month, 143; total last October, 272.



## MORTALITY

Deaths Reported to the State Board of Health for the Month of  
September 1908, Arranged According to Counties,

	Tuberculosis.....	Diphtheria.....	Scarlet Fever.....	Measels.....	Typhoid Fever.....	Meningitis.....	Whooping Cough.....	Pneumonia.....	Nephritis.....	Organic Heart Disease.....	Malignant Tumors.....	Acute Intestinal Diseases.....	Violence.....	Suicide.....	Alcoholism.....	All other Causes..	Totals.....
Beaverhead.....								1		3						2	6
Broadwater.....												2			1	2	6
Carbon.....	1	2			2	1		1	1			2	3			3	21
Cascade.....			1		1		2	2	1				1	1		8	24
Chouteau.....												1	1			2	4
Custer.....					1			1	1	1		2	1			2	9
Dawson.....	1											1	2			4	8
Deer Lodge.....		2										3				6	11
Fergus.....					1			1			1	2	1			1	7
Flathead.....	3				3				1	2	2	4			1	9	26
Gallatin.....			1		1			1	2	1	1	1	1	1		3	12
Granite.....												1				2	3
Jefferson.....						1				1			1	1			4
Lewis and Clark..	1								2	2	2	2		1		7	19
Madison.....								1		2	2		2			4	11
Meagher.....													2				2
Missoula.....	2	1			8			2		1	1	3	1	1	3	15	38
Park.....									1		1	2	1	1		8	14
Powell.....								1	1	1			3			2	8
Ravalli.....											1	3			1	3	8
Rosebud.....																	2
Sanders.....												1	6				7
Silver Bow.....	9	3	7		6	2		5	3	4	2	12	9	2	2	33	99
Sweet Grass.....					2										1		3
Teton.....													1				1
Valley.....									1							2	3
Yellowstone.....	3	1			2				2			4	24	2		5	43
Totals.....	20	9	8		27	4	2	16	16	18	13	58	63	12	8	125	399

Deaths per 100,000; 142.5

Annual Death rate per 1,000; 17.1

### Deaths reported from cities of 5,000 or more inhabitants

Anaconda.....		2										3				6	11
Billings.....	2	1			2				1			3	5			3	17
Bozeman.....									2		1			1		1	5
Butte.....	6	1	5		4	1		3	2	2	2	8	6	1		19	60
Great Falls.....			1		1			2	1			6		1		7	19
Helena.....	1								2	1	2	2	2			6	16
Livingston.....									1			2	1			6	10
Missoula.....	2	1			5			1		1	1	3		1	2	8	25

## Deaths Reported to the State Board of Health for the Month of October, 1908, Arranged According to Counties.

	Tuberculosis	Diphtheria	Scarlet Fever	Measles	Typhoid Fever	Meningitis	Whooping Cough	Pneumonia	Nephritis	Organic Heart Disease	Malignant Tumors	Acute Intestinal Diseases	Violence	Suicide	Alcohol	All other causes	Total
Beaverhead					1			1								3	5
Broadwater											1	2				1	4
Carbon					1	2		2						3		5	14
Cascade		2			1			1	2	2		1		4	1	7	20
Chouteau	1	1											3			1	6
Custer	1				2			1		2						1	7
Dawson						1			1		1					4	7
Deer Lodge	3									4			1			15	23
Fergus	2			1	1					1				3	2	1	11
Flathead	1	2			1			1		2		2	6			7	22
Gallatin		1			1			1		1	1	3	2			7	16
Granite																	
Jefferson	1										1		1				3
Lewis and Clark	4							2		4	1	2	2	4		13	32
Madison	1				1											2	4
Meagher										1			1		2	3	7
Missoula	2				6			3	1	1			8			8	30
Park	2															6	8
Powell													1			1	2
Ravalli					1			1			1	1	1			1	6
Rosebud																	
Sanders	1												2				3
Silver Bow	9	2	2		4	2		7	1	4	4	3	6		1	33	78
Sweetgrass	1							1	1				1			1	5
Teton													1				1
Valley	1										1		3			2	7
Yellowstone	1							2	1			2	1			6	13
Totals	31	8	2	1	19	5		23	7	21	13	16	50	7	3	128	334

Deaths per 100,000, 119.3.

Annual death rate per 1,000, 14.216.

## Deaths Reported from Cities of 5,000 or More Inhabitants.

Anaconda	3												1			11	15
Billings	1							1	1			1				5	9
Bozeman		1								1	1	1				4	8
Butte	6	2	1		3	2		7	1	4	3	2	4		1	30	66
Great Falls		1			1			1	2	2			4	1		7	19
Helena	4							2		3	1	2	1	3		13	29
Livingston	1															2	3
Missoula	2				5			2	1	1	1		2			6	20

## BIRTHS.

Births reported to the State Board of Health of Montana for  
September 1908, and comparative birth and death rate in State.

	Males	Females	Totals	Deaths	Excess of Births	Excess of Deaths		Males	Females	Totals	Deaths	Excess of Births	Excess of Deaths
Beaverhead .....	3	5	8	6	2	...	Meagher .....	...	1	1	2	...	1
Broadwater .....	3	1	4	6	...	2	Missoula .....	10	13	23	38	...	15
Carbon .....	14	12	26	21	5	...	Park .....	10	6	16	14	2	...
Cascade .....	25	26	51	24	27	...	Powell .....	1	2	3	8	...	5
Choteau .....	3	2	5	4	1	...	Ravalli .....	8	11	19	8	11	...
Custer .....	7	14	21	9	12	...	Rosebud .....	7	5	12	2	10	...
Dawson .....	11	4	15	8	7	...	Sanders .....	1	...	1	7	...	6
Deer Lodge .....	9	16	25	11	14	...	Silver Bow .....	46	26	72	99	...	27
Fergus .....	8	4	12	7	5	...	Sweetgrass .....	3	3	6	3	3	...
Flathead .....	12	10	22	26	...	4	Teton .....	1	...	1	1	...	...
Gallatin .....	10	15	25	12	13	...	Valley .....	8	4	12	3	9	...
Granite .....	1	3	4	3	1	...	Yellowstone .....	12	15	27	43	...	16
Jefferson .....	1	2	3	4	...	1	Totals .....	226	217	443	399	44	...
Lewis and Clark .....	6	13	19	19	...	...							
Madison .....	6	4	10	11	...	1							

Births reported from Cities of 5,000 or more inhabitants.

Anaconda .....	9	16	25	11	14	...	Great Falls .....	16	14	30	19	11	...
Billings .....	8	9	17	17	...	...	Helena .....	3	10	13	16	...	3
Bozeman .....	6	5	11	5	6	...	Livingston .....	7	1	8	10	...	2
Butte .....	38	21	59	60	...	1	Missoula .....	7	9	16	25	...	9

## BIRTHS

Births Reported to the State Board of Health for October 1908, and  
comparative birth and death rate in State.

Beaverhead .....	4	1	5	5	...	...	Meagher .....	5	2	7	7	...	...
Broadwater .....	3	2	5	4	1	...	Missoula .....	10	18	28	30	...	2
Carbon .....	16	9	25	14	11	...	Park .....	13	15	28	8	20	...
Cascade .....	18	28	46	20	26	...	Powell .....	1	2	3	2	1	...
Choteau .....	5	4	9	6	3	...	Ravalli .....	10	6	16	6	10	...
Custer .....	4	4	8	7	1	...	Rosebud .....	3	1	4	...	4	...
Dawson .....	3	3	6	7	...	1	Sanders .....	...	1	1	3	...	1
Deer Lodge .....	7	7	14	23	...	9	Silver Bow .....	50	45	95	78	17	...
Fergus .....	12	14	26	11	15	...	Sweetgrass .....	5	2	7	5	2	...
Flathead .....	17	15	32	22	10	...	Teton .....	5	3	8	1	7	...
Gallatin .....	8	4	12	16	...	4	Valley .....	5	4	9	7	2	...
Granite .....	4	2	6	...	6	...	Yellowstone .....	20	14	34	13	21	...
Jefferson .....	4	3	7	3	4	...	Totals .....	252	224	476	334	142	...
Lewis and Clark .....	13	14	27	32	...	5							
Madison .....	7	1	8	4	4	...							

Births Reported from Cities of 5,000 or more inhabitants.

Anaconda .....	7	7	14	15	...	1	Great Falls .....	17	26	43	19	24	...
Billings .....	13	9	22	9	13	...	Helena .....	8	9	17	29	...	12
Bozeman .....	2	1	3	8	...	5	Livingston .....	9	11	20	3	17	...
Butte .....	46	40	86	66	20	...	Missoula .....	7	11	18	20	...	2